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TITLE : FORMING METHOD FOR CORROSION RESISTANT TRANSPARENT CONDUCTIVE FILM

ABSTRACT : PURPOSE: To obtain the good corrosion resistant transparent conductive film of low resistance value by sputtering the material comprising Ta₂O₅ at 1-10wt% to TiO₂ in the atmosphere added with O₂ so as to have a partial pressure of 0.1-10% in Ar gas.

CONSTITUTION: The material comprising adding Ta₂O₅ at 1-10wt% (about 6wt% to obtain the lowest resistance value) to TiO₂ is used as a target material. This material is sputtered in an atmosphere comprising adding O₂ to Ar gas so as to have a partial pressure of 1 to 0.1-10% (about 4% in order to obtain the minimum resistance value), whereby the corrosion-resistant transparent conductive film is obtained. In this way, the high resistance value, poor reproducibility and difficulty in practicable use in the case of TiO₂ alone are solved by addition of Ta₂O₅ and the conductive film of superior corrosion resistance and heat resistance used for liquid crystal display device, etc. is obtained.

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